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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/505,501	02/17/2000	William L. O'Meara	102001-200	7115
27267	7590	11/14/2003	EXAMINER	
WIGGIN & DANA LLP ATTENTION: PATENT DOCKETING ONE CENTURY TOWER, P.O. BOX 1832 NEW HAVEN, CT 06508-1832			FELTON, AILEEN BAKER	
			ART UNIT	PAPER NUMBER
			3641	

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

pplicant(s)

09/505,501

O'MEARA ET AL.

Examiner

Art Unit

Aileen B Felton

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-7 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) 1-7 and 19-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Applicant's amendment in Paper No. 22 overcomes the 112- first and second paragraph rejections.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen(2,292,469) in view of Jacobson(4,094,248) and Smith et al(5,682,013).

Olsen discloses a propellant composition that comprises nitrocellulose and ethyl acetate as solvent (page 2, col. 1, lines 10-11), diphenylamine (pg. 2, col. 2, lines 13-15), dibutylphthalate, and nitroglycerin (pg. 3, col. 2 lines 35-40). On pg. 2, col 1, it is indicated that the viscosity can be modified by the use of increased or decreased solvent and that one viscosity is such that a 5/16" diameter steel ball requires 1,000 seconds to fall ten inches. It is also indicated here that lower viscosities tend to speed the purification. The composition may be extruded through dies to form a perforated cylindrical grain or further changed into any desired form (pg. 4, col. 2, lines 25-32). This reference indicates in several places the ratio of solvent to nitrocellulose, on pg. 3,

col.1, lines 5-15, the ratio can range from 8:1 to 4:1. It also indicates that the particles can be composed of 4-6 parts of solvent to about 5 parts nitrocellulose. Further, on pg. 4, col.2, lines 18-21, indicate that the solvent content is reduced to a point where the globules contain 8 parts solvent to 10 parts nitrocellulose. These ratios can readily be converted into percentages. The particular shape is not disclosed.

Jacobson and Smith et al teach two propellant shapes. Jacobson teaches a shape with external grooves and Smith teaches one with a cylindrical shape.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the composition of Olsen into the shapes taught by Jacobson and Smith et al since it is suggested by Olsen that the propellant can be formed into any shape. It would also have been obvious to vary the viscosity of the lacquer to suit any purpose since Olsen suggests that this can be easily done by varying the amount of solvent. There is also no indication that the viscosity obtained by Olsen is any different than that which is claimed by the Applicant. Thus, the viscosity is considered an inherent property of the composition of Olsen. As to limitations which are considered to be inherent in a reference, note the case law of *In re Ludke*, 169 USPQ 563; *In re Swinehart*, 169 USPQ 226, *In re Fitzgerald*, 205 USPQ 594; *In re Best et al*, 195 USPQ 430; and *In re Brown*, 173 USPQ 685, 688. It is also noted that the claims only require nitrocellulose and solvent and list all the other ingredients such as diphenylamine, nitroglycerin, and dibutylphthalate as optional. It would be obvious to one of ordinary skill to determine the amounts of these ingredients needed and also since no amount is disclosed by Olsen there is no way to know that the amount isn't the

same amount that is claimed by Applicant. It would be obvious to vary the amounts of solvent and nitrocellulose within the ranges indicated by Olsen. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Response to Arguments

4. Applicant's arguments filed 9/23/03 have been fully considered but they are not persuasive. Applicant argues that Olsen is not a lacquer, however in page 2, lines 24-30, the disclosure indicates that it is a lacquer composition. The percents are not shown in the disclosure but ratios of solvent to nitrocellulose are shown in page 3, lines 4-17. The viscosity is also shown on page 2, lines 33-37. Olsen clearly discloses that the viscosity can be varied to suit many purposes by merely altering the amount of solvent used. Olsen also discloses that the lacquer composition can be extruded through dies to create a perforated pellet on page 4, lines 22-32. Jacobson and Smith et al are used to merely teach different shapes of pellets that can be formed and are not intended to show any of the composition of the instant invention. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687. The fax number for submissions before a final action is (703) 872-9326, for after final submissions is (703) 872-9327, and customer service is (703) 872-9325.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.


Aileen B. Felton